Appendix J
Civilian and Commercial Imagery Office

J-1. Introduction

As part of the U.S. Army Corps of Engineers (USACE), the Engineer Research and Development Center's Topographic Engineering Center (TEC) is responsible for Army-wide monitoring of commercial satellite imagery acquisition. TEC's Imagery Office (TIO) conducts the research, acquisition, archiving, and distribution of current and historical imagery and related products for the Army as well as for customers. Responsibilities include researching available archives (both government and satellite vendors), placing orders, managing funding when needed, tracking acquisitions, and distributing data to the customer. TIO also ensures data are stored in the National Imagery and Mapping Agency's Commercial Satellite Imagery Library. Access to this data is cost-free for USACE and associated contractors. Provided the correct licensing has been purchased, the data is also available to the Department of Defense (DoD) and to the Title 50 Intelligence Community as listed below:

- Office of the Director of Central Intelligence.
- Central Intelligence Agency.
- National Security Agency.
- Defense Intelligence Agency.
- National Imagery and Mapping Agency.
- National Reconnaissance Office.
- Other offices within the DoD for the collection of specialized national intelligence through reconnaissance programs.
- Intelligence elements of the Services.
- Federal Bureau of Investigation.
- Department of Treasury.
- Department of Energy.
- Bureau of Intelligence and Research of the Department of State.
- Such elements of any other department or agency as may be designated by the President, or designated jointly by the Director of Central Intelligence and the head of the department or agency concerned, as an element of the intelligence community.

J-2. Development of TEC's Imagery Office (TIO)

To help Army agencies/organizations avoid duplicating commercial and civil imagery purchases, the Office of the Assistant Chief of Engineers designated TEC in 1990 to act as the U.S. Army Commercial and Civil Imagery (C2I) Acquisition Program Manager. To accomplish this task, the TIO was initiated with the added

focus on educating the soldier on the uses, types, and availability of commercial satellite imagery. As Army use of this imagery increased and as the number of satellites increased, the TIO has grown to keep up with the demand. Currently, TIO provides thousands of dollars of imagery support to its customers, and is an active participant in National Imagery and Mapping Agency's Commercial Imagery Strategy.

TIO is the designated repository of selected commercial satellite imagery data pertaining to terrain analysis and water resources operations worldwide. These data support worldwide military applications and operations. TIO executes the Commercial Imagery Program for TEC and the Army. The current revision of Army Regulation 115-11, "Geospatial Information and Services," strengthens the role of TIO as the point of contact for acquisition of commercial satellite imagery in the Army.

J-3. How to Order Commercial Satellite Imagery

USACE Commands are required to first coordinate with TIO before purchasing satellite imagery from a commercial vendor. USACE organizations with requirements for commercial satellite imagery must forward requests to TIO for research, acquisition, and distribution of the data. The requests can be submitted as follows:

TIO@tec.army.mil
Telephone: 703-428-6909
Fax: 703-428-8176
Online Request Form
www.tec.army.mil/forms/csiform1.html

Each request should include the following information:

- Geographic area of interest. Please provide Upper Left and Lower Right coordinates (e.g., 27 00 00N 087 00 00W) and path/row, if known.
- Acceptable date range for data coverage (e.g., 5 January 1999 to 3 March 2000).
- Cloud cover and quality restrictions (e.g., less than 10 percent cloud cover, no haze, 10 degrees off nadir).
- Satellite system/sensor. (For basic satellite information, access www.tec.army.mil/TIO/satlink.htm.)
- Desired end product (digital or hard copy and preferred media type; e.g., CD-ROM).
- Point of contact, mailing and electronic address, and telephone number.

J-4. Purchased Commercial Satellite Imagery Submission to the Commercial Satellite Imagery Library (CSIL)

Commercial satellite imagery that the TIO purchases for customers is disseminated upon receipt to the requestor as well as to the CSIL. This provides data access for DoD/Title 50 users.

J-5. Frequency of Imagery Collection

NIMA's goal is to obtain imagery within 24 hours of requests. However, frequency of imagery collection depends on a variety of conditions that include cloud cover, revisit time, and angle of collection (i.e., viewing angle or look angle). For example, revisit time to obtain data requires data from different collection dates (days, weeks, months, or years). The change detection product quantifies alterations in land use and land cover. For more details, access www.tec.army.mil/TIO/satlink.htm.

a. Sensor availability. Commercial satellite imagery users have access to a sizable number of data choices. The United States has Landsat 7 and other instruments associated with the Earth Observing Program with data for use/purchase. For a complete list of available sensors and their capabilities and benefits, access www.tec.army.mil/TIO/satlink.htm.

b. Possible civil applications. Commercial satellite imagery, such as Space Imaging's IKONOS, Orbimage's Orbview-3 and Orbview-4, and EarthWatch's Quickbird, requires no special permission for use. With proper licensing, commercial satellite imagery can aid in recovery efforts after natural disasters, because no restrictions or sensitivities exist affecting product distribution. The high frequency of repeat coverage is a useful tool within USACE and the Army.

Commercial imagery provides a backdrop for Geographic Information Systems vector data. It also provides a tool for facilities management, remediation, flood-plain management, and erosion and sedimentation studies. Commercial imagery can be useful to USACE in planning, managing, and inventorying natural resources. Flood-control efforts in USACE and the Army can utilize commercial satellite imagery for accurately capturing flood boundaries, tracking erosion/levee damage, documenting levee repairs, providing model validation, and providing a graphic context.

Commercial satellite imagery can also be used as a tool to aid in the determination of severe, moderate, and light damage zones; impassable roads; damage model input; debris estimation; ice and water distribution; roofing; change detection; and damage to critical facilities and infrastructure, such as bridges, power plants, and power transmission towers.